

DEFENSE LOGISTICS AGENCY

LAND AND MARITIME POST OFFICE BOX 3990 COLUMBUS, OH 43218-3990

September 24, 2012

Mr. Paul Comer Graphic Plc Down End Lords Meadow Industrial Estate Crediton, Devon EX17 IHN United Kingdom

Dear Mr. Comer:

RE: Notification of Qualification, MIL-PRF-31032B, FSC 5998; CN037269, VQ (VQE-12-025119)

Qualification of your products is granted under the current issue of the specification as a result of successful qualification testing to Department of Defense Performance Specification MIL-PRF-31032, Printed Circuit Board/Printed Wiring Board, and associated specifications MIL-PRF-31032/1 and MIL-PRF-31032/2. The capabilities indicated below shall be listed on Qualified Manufacturers List QML-31032. The effective date of this qualification is September 24, 2012.

| MANUFACTURER NAME & ADDRESS | PLANT LOCATION | CAGE CODE: U4538 |
|--|----------------|--|
| Graphic Plc Down End | Same | PHONE #: 44-1363-774874 FAX #: 44-1363-772265 |
| Lords Meadow Industrial Estate Crediton, Devon EX17 IHN United Kingdom | | |
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CAPABILITIES BY TECHNOLOGY / ASSOCIATED SPECIFICATION:

Specification: MIL-PRF-31032/1, MIL-PRF-31032/2

Qualification Letters: VQE-12-025119

Rigid Base Material: GI: Glass Base, Woven, Polyimide Resin, Heat Resistant

Max. Panel Size: 12" x 18" Max. Number of Layers: 10

Max. Board Thickness: 0.110" (2.79mm)

Min. Hole Size: 0.012" (0.30mm) Drilled Plated-Through Hole Before Plating

Aspect Ratio: 8.4:1 Through-Hole

Min. Conductor Width/Space: 0.004"/0.004" (0.1mm/0.1mm) Hole Preparation: Plasma Desmear, Plasma Etchback Hole Wall Conductive Coating: Electroless Copper

Copper Plating: Direct Current Plate Solder Resist: Liquid Photoimageable

Finish System: HASL, ENIG (extended from 31032-3228-11)

Additional Fab Capabilities: Foil Lamination

Test report number 31032-3375-12 has been assigned to your test data. This qualification is based on your MIL-PRF-31032 certification and is subject to the conditions stated below:

- 1. A listing on the Qualified Manufacturers List (QML) does not guarantee acceptance of the product(s) in any future purchase.
- 2. QML listing does not constitute a waiver of any requirements of the specification or of the provisions of any contract.
- 3. Advertising of qualification information is permitted. Permission to use such information for advertising or publicity purposes is granted provided that such publicity or advertising does not state or imply that the product(s) is the only product of that type qualified or that the Department of Defense in any way recommends or endorses the manufacturer's product.
- 4. The listing applies only to products produced in the plant(s) specified in this letter of notification of qualification and applies to future amendments or revisions of the specification, unless otherwise notified.
- 5. The listing applies only to materials and manufacturing construction techniques identical to or covered by that (those) qualified. The qualifying activity must be advised in advance of any change to the materials and manufacturing construction techniques. Failure to notify the qualifying activity of any change to the materials and manufacturing construction techniques is cause for removal from the QML.

Because we are held responsible for the accuracy and currency of this QML, please let us know if your company discontinues production utilizing these materials or processes. If you have any questions, please contact Mr. Lowell Sherman, (614) 692-0627 or vqe.ls@dla.mil.

Sincerely,

/SIGNED/

JOSEPH GEMPERLINE Chief Sourcing and Qualifications Division